

C L A I M S

1. Use of benzoquinones as the only oxidant in agents for oxidative treatment of hair.
- 5 2. Use as defined in claim 1, characterized in that the benzoquinone used is p-benzoquinone, o-benzoquinone or a water-soluble derivative or salt thereof.
3. Use as defined in claim 2, characterized in that the water-soluble benzoquinone derivative is dihydroxybenzoquinone or tetrahydroxybenzoquinone.
- 10 4. Use as defined in claim 3, characterized in that the benzoquinone derivative used is 2-hydroxy-1,4-benzoquinone, 3-hydroxy-1,2-benzoquinone, 2,5-dihydroxy-1,4-benzoquinone, 3,4-dihydroxy-1,2-benzoquinone, tetrahydroxy-1,4-benzoquinone or tetrahydroxy-1,2-benzoquinone.
- 15 5. Use as defined in one of claims 1 to 4, characterized in that the benzoquinone, the salt or the derivative thereof is used in an amount from 1 to 5 weight percent.
- 20 6. Use as defined in one of claims 1 to 5, characterized in that the benzoquinone, the derivative or the salt thereof is used at a pH of 2.5 to 7.5.
7. Use as defined in one of claims 1 to 6, characterized in that the agent for oxidative treatment of hair is a permanent hair-shaping fixing agent.
- 25 8. Agent for oxidative treatment of hair, characterized in that it contains at least one o-benzo-quinone, selected from among o-benzoquinone and derivatives or salts thereof.
9. Agent for oxidative treatment of hair as defined in claim 8, characterized in that it has a pH in the range from 1.5 to 10 and contains:
 - 30 (A) 0.5 to 10.0 wt. % of at least one o-benzoquinone, a derivative thereof or a salt

thereof, and

- (B) 0.01 to 10 wt. % of at least one pH-adjusting agent.

10. Agent as defined in claim 9, characterized in that the pH-adjusting agent is
5 selected from among ammonia, an ammonium or alkali metal hydroxide, an ammonium or alkali metal car-bonate, an ammonium or alkali metal hydrogen carbonate, citric acid and the salts thereof, phos-phoric acid and the salts thereof or ascorbic acid and the salts thereof, wherein alkali metal de-notes sodium or potassium and the salts are chlorides, carbonates, sulfates or phosphates.

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11. Method for permanent hair shaping whereby the hair, before and/or after it has been brought into the desired shape, is treated with a keratin-reducing shaping agent, after which it is rinsed, then oxidatively post-treated with a fixing agent and again rinsed, characterized in that the fixing agent used is an agent as defined in claim 8.

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